ABSTRACT OF THE DISCLOSURE

A radiographic sensor retention apparatus for retaining a radiographic sensor and allowing it to be properly positioned within the mouth of a dental patient during x-ray image registration. The apparatus is held in position within the mouth of the patient in response to biting pressure from the upper and lower dental surfaces, and comprises a bite block with an extending first jaw member, a second jaw member slidably engaged with the bite block, and a threadable member connecting the second jaw member to either the bite block or the first jaw member, wherein the separation between the jaws is continuously variable in response to the rotation of the threadable member. Compliant members are preferably joined to one or both of the jaw members to aid in distributing the retention forces and to reduce sensor slippage. The bite block is preferably configured for the attachment of at least one alignment guide.